

**REMARKS**

Applicant notes with appreciation the allowability of claims 11-17 and the potential allowability of claims 3 and 6-10. By way of this amendment, claims 1, 3 and 6-10 have been amended. Claim 1 has been amended consistent with the specification teachings found on page 19, line 1 – page 22, line 9 to recite the inherent attribute of the normal Gram-Schmidt vectors that they are “defining a set of normal Gram-Schmidt coefficients” and that such coefficients are used as a basis for computing abnormal Gram-Schmidt vectors. Additionally, claims 1, 3, and 6-10 have been amended to delete the computation of a “signal to noise ratio for said normal Gram-Schmidt vectors” as this is not a necessary step in the practice of the invention as detailed in the specification teachings found on page 19, line 1 – page 22, line 9. Claims 3 and 6-10 have been rendered in independent form including the limitations of the base claim 1 and any interceding claims. As such, it is submitted that no new matter has been added to the application by way of this amendment.

Currently, claims 1, 2, 4 and 5 stand rejected under 35 U.S.C. §102(e) as anticipated by Cao et al. (U.S. Patent 6,463,341).

In response to this rejection, claim 1 has been amended to further clarify the claimed process to indicate that the calculation of abnormals is performed based on the normal values. Because according to the invention of amended claim 1 abnormals are calculated in this fashion, the resulting values obtained are not necessarily orthogonal because only values associated with the normal group have been orthogonalized. In contrast to pending claim 1, Cao et al. requires the use of a heterogeneous basis function that is equivalent to the inventive **combined normal and abnormal data subsets** in order to adequately train a neural net. (Column 5, lines 60-62). As such, it is submitted that the process of claim 1 is necessarily different from that detailed in

Cao et al. This is inherently demonstrable by the fact that the inventive process does not necessarily afford orthogonal abnormal Gram-Schmidt vectors since only normal Gram-Schmidt vector coefficients are used in the computation of abnormal Gram-Schmidt vectors, and this is contrary to the teachings found in Cao et al. at column 5, lines 43-57.

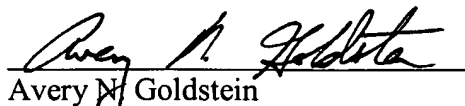
Since anticipation has always been held to require absolute identity between a claimed invention and the teachings found within a single reference, reconsideration and withdrawal of the rejection as to claim 1 and those claims that depend therefrom is respectfully requested. Dependent claims 2, 4 and 5 as such are also now believed to be in allowable form.

#### **Summary**

Entry of this amendment is respectfully requested. With entry of this amendment, claims 1-17 remain pending in the application. The amendments to claim 1 are believed to clearly distinguish the claim over the prior art of record as well as dependent claims 2, 4 and 5. As such, all the pending claims are believed to be directed to allowable and patentable subject matter. Allowance of the pending claims and the passing of this application to issuance are solicited.

Should the Examiner have any suggestions as to how to improve the form or substance of the pending claims, it is respectfully requested that the undersigned attorney in charge of the application be contacted.

Respectfully submitted,



Avery N. Goldstein  
Registration No. 39,204  
Gifford, Krass, Groh, Sprinkle,  
Anderson & Citkowski, P.C.  
2701 Troy Center Drive, Suite 330  
P.O. Box 7021  
Troy, MI 48007-7021  
(248) 647-6000

Attorney for Applicant

ANG/gs

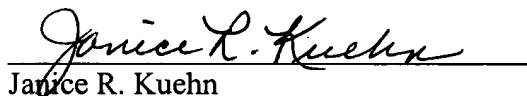
GS-W:\Word Processing\ang\AS110003-amd2.doc

**CERTIFICATE OF MAILING BY "EXPRESS MAIL"**

"EXPRESS MAIL" MAILING LABEL NUMBER EV67D980779US

DATE OF DEPOSIT December 2, 2005

I hereby certify that this paper or fee (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service "Express Mail Post Office To Addressee" Service under 37 CFR 1.10 on the date indicated above and is addressed to: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.



Janice R. Kuehn